

**William Haldewang  
Indiana Coated Fabrics, Inc.  
P.O. Box 1017  
Warsaw, IN 46581**

Re: Registered Construction and Operation Status,  
**085-12667-00055**

Dear Mr. Haldewang:

The application from Indiana Coated Fabrics, Inc., received on August 30, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following coated and laminated window shades and projection screen fabrics manufacturing plant, to be located at State Road 15 North, Poor Drive, Warsaw, Indiana, 46581 is classified as registered:

- (a) One (1) DOTP holding tank with a capacity of 1,500 gallons;
- (b) Two (2) batch mixers;
- (c) One (1) natural gas-fired steam boiler rated at 0.65 MMBtu/hr;
- (d) Four (4) natural gas-fired drying ovens, each rated at 3.2 MMBtu/hr;
- (e) Ten (10) various capacity natural gas-fired space heaters with a total heat input rating of 1.42 MMBtu/hr;
- (f) Three (3) natural gas-fired space heaters, rated at 0.1725 MMBtu/hr, 0.1725 MMBtu/hr and 0.075 MMBtu/hr, respectively; and
- (g) One (1) natural gas-fired steam boiler, rated at 1.666 MMBtu/hr.

The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

Pursuant to 326 IAC 6-2-3(e) (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which began operation after June 8, 1972 and before September 21, 1983, shall be limited to 0.6 lb/MMBtu. Thus the PM emissions from the one (1) 0.65 MMBtu/hr steam boiler (constructed in January 1975) shall not exceed 0.6 lb/MMBtu heat input.

Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which have 10 MMBtu/hr heat input or less and which began operation after September 21, 1983, shall in no case exceed 0.6 lb/MMBtu heat input. Therefore PM emissions from the 1.666 MMBtu/hr boiler (constructed in August 1999) shall be limited to 0.6 lb/MMBtu heat input.

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the two (2) batch mixers shall be limited to 0.16 pounds per hour for a maximum process rate of 144000 pounds per year.

This registration supersedes any previous air approvals issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Management that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section  
Office of Air Management  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

NH/EVP

cc: File - Kosciusko County  
Kosciusko County Health Department  
Air Compliance - Doyle Houser  
Northern Regional Office  
Permit Tracking - Janet Mobley  
Air Programs Section- Michelle Boner

## Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

<b>Company Name:</b>	<b>Indiana Coated Fabrics, Inc.</b>
<b>Address:</b>	<b>State Road 15 North, 201 Poor Drive</b>
<b>City:</b>	<b>Warsaw</b>
<b>Authorized individual:</b>	<b>William Haldewang</b>
<b>Phone #:</b>	<b>(219) 269-1280</b>
<b>Registration #:</b>	<b>R085-12667-00055</b>

I hereby certify that Indiana Coated Fabrics, Inc. is still in operation and is in compliance with the requirements of Registration 085-12667-00055.

<b>Name (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

## **Indiana Department of Environmental Management Office of Air Management**

### **Technical Support Document (TSD) for a Registration**

#### **Source Background and Description**

**Source Name:** Indiana Coated Fabrics, Inc.  
**Source Location:** State Road 15 North, 201 Poor Drive, Warsaw, Indiana 46581  
**County:** Kosciusko  
**SIC Code:** 2295  
**Operation Permit No.:** R085-12667-00055  
**Permit Reviewer:** NH/EVP

The Office of Air Management (OAM) has reviewed an application from Indiana Coated Fabrics, Inc. relating to the operation of manufacturing coated and laminated window shades and projection screen fabrics.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) DOTP holding tank with a capacity of 1,500 gallons;
- (b) Two (2) batch mixers;
- (c) One (1) natural gas-fired steam boiler rated at 0.65 MMBtu/hr;
- (d) Four (4) natural gas-fired drying ovens, each rated at 3.2 MMBtu/hr;
- (e) Ten (10) various capacity natural gas-fired space heaters with a total heat input rating of 1.42 MMBtu/hr;
- (f) Three (3) natural gas-fired space heaters, rated at 0.1725 MMBtu/hr, 0.1725 MMBtu/hr and 0.075 MMBtu/hr, respectively; and
- (g) One (1) natural gas-fired steam boiler, rated at 1.666 MMBtu/hr.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

## Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) CP 085-4662-00055, issued on July 20, 1995.

All conditions from previous approvals were incorporated into this permit.

## Enforcement Issue

There are no enforcement actions pending.

## Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on August 30, 2000.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 3).

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.20
PM-10	0.62
SO <sub>2</sub>	0.04
VOC	12.31
CO	6.24
NO <sub>x</sub>	7.43

HAP's	Potential To Emit (tons/year)
Ethyl Acrylate	0.025
Vinyl chloride	0.124
TOTAL	0.149

- (a) Potential emissions (as defined in the Indiana Rule) of VOC are less than 25 tons per year, but greater than 5 tons per year. Therefore, pursuant to 326 IAC 2-5-5, a registration is required.
- (b) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Actual Emissions

No previous emission data has been received from the source.

### County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Kosciusko County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Kosciusko County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.20
PM10	0.62
SO <sub>2</sub>	0.04
VOC	12.31
CO	6.24
NO <sub>x</sub>	7.43

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

### Part 70 Permit Determination

#### 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit R085-12667-00055, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

### Federal Rule Applicability

- (a) The two (2) steam boilers, rated at 0.65 MMBtu/hr and 1.666 MMBtu/hr are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because they each have a maximum heat input rate of less than 10 MMBtu/hr.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

### State Rule Applicability - Entire Source

#### 326 IAC 2-6 (Emission Reporting)

This source is located in Kosciusko County and the potential to emit all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### State Rule Applicability - Individual Facilities

#### 326 IAC 2-4.1-1 (New Source Toxics Control)

This source (constructed before July 27, 1997, the applicability date of this rule) will emit less than ten (10) tons per year of a single HAP or twenty-five (25) tons per year of a combination of HAPs. Therefore 326 IAC 2-4.1-1 does not apply.

#### 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

(a) Pursuant to CP 085-4662-00055 and 326 IAC 6-2-3(e) (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which began operation after June 8, 1972 and before September 21, 1983, shall be limited to 0.6 lb/MMBtu. Thus the PM emissions from the one (1) 0.65 MMBtu/hr steam boiler (constructed in January 1975) shall not exceed 0.6 lb/MMBtu heat input.

(b) Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which began operation after September 12, 1983, shall be calculated using the following equation:

$$Pt = 1.09/Q^{0.26}$$

where: Pt = maximum allowable particulate matter (PM) emitted per MMBtu heat input

Q = total source max. indirect heater input = 1.666 MMBtu/hr

$$Pt = 1.09/1.666^{0.26} = 0.95 \text{ lbs PM/MMBtu}$$

Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which have 10 MMBtu/hr heat input or less and which began operation after September 21, 1983, shall in no case exceed 0.6 lb/MMBtu heat input. Therefore PM emissions from the 1.666 MMBtu/hr boiler (constructed in August 1999) shall be limited to 0.6 lb/MMBtu heat input.

#### 326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the following processes shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

$$E = 4.10 ((144000 \text{ lbs/yr}) / ((2000 \text{ lbs/ton}) * (8760 \text{ hrs/yr})))^{0.67} = 0.16 \text{ lbs PM/hr}$$

Based on the above equation, particulate matter emissions from the two (2) batch mixers shall be limited to 0.16 pounds per hour for a maximum process rate of 144000 pounds per year.

#### Compliance calculation:

$$(0.06 \text{ tons PM/yr}) * (\text{yr}/8,760 \text{ hrs}) * (2,000 \text{ lbs/ton}) = 0.01 \text{ lbs PM/hr}$$

Actual lbs PM/hr (0.01) is less than the allowable lbs PM/hr (0.16), therefore the two (2) batch mixers will comply with the requirements of 326 IAC 6-3-2.

### Conclusion

The operation of this manufacturing coated and laminated window shades and projection screen fabrics shall be subject to the conditions of the attached proposed **R085-12667-00055**.



**Appendix A: Emission Calculations**

**Company Name:** Indiana Coated Fabrics, Inc.  
**Address City IN Zip:** State Road 15 North, Poor Drive, Warsaw, IN 46581  
**CP:** 085-12667  
**Plt ID:** 085-00055  
**Reviewer:** NH/EVP

Uncontrolled Potential Emissions (tons/year)			
Emissions Generating Activity			
Pollutant	Coating and Laminating	Natural Gas Combustion	TOTAL
PM	0.06	0.14	0.20
PM10	0.06	0.56	0.62
SO2	0.00	0.04	0.04
NOx	0.00	7.43	7.43
VOC	11.90	0.41	12.31
CO	0.00	6.24	6.24
total HAPs	0.00	0.00	0.00
worst case single HAP	0.00	0.00	0.00
Total emissions based on rated capacity at 8,760 hours/year			
Controlled Potential Emissions (tons/year)			
Emissions Generating Activity			
Pollutant	Coating and Laminating	Natural Gas Combustion	TOTAL
PM	0.06	0.14	0.20
PM10	0.06	0.56	0.62
SO2	0.00	0.04	0.04
NOx	0.00	7.43	7.43
VOC	11.90	0.41	12.31
CO	0.00	6.24	6.24
total HAPs	0.00	0.00	0.00
worst case single HAP	0.00	0.00	0.00
Total emissions based on rated capacity at 8,760 hours/year, after control			

**Appendix A: Emissions Calculations  
VOC and PM Emissions from Mixers**

**Company Name:** Indiana Coated Fabrics, Inc.  
**Address City IN Zip:** State Road 15 North, Poor Drive, Warsaw, IN 46581  
**CP:** 085-12667  
**Plt ID:** 085-00055  
**Reviewer:** NH/EVP

**VOC Emissions from the two (2) batch mixers**

**Process Emissions from Coating and Laminating**

Material Used	Actual Usage (lb/yr) @ 2500 hr/yr	Weight Percent Organic (%)	VOC Actual Emissions (ton/yr)	VOC Potential Emissions (ton/yr)
Antimony	24000	0.09%	0.01	0.04
PVC Film	800000	0.80%	3.20	11.21
Polyvinyl Chloride	120000	0.05%	0.03	0.11
Latex	76300	0.03%	0.01	0.04
407 Acrylic	29925	0.40%	0.06	0.21
DOTP	85040	0.20%	0.09	0.30
Total			3.40	11.90

**Methodology**

Actual Emissions = Actual usage, lb/yr \* wt % organic \* ton/2000 lb

Potential Emissions = Actual usage, lb/yr \* 8760 hr/yr / 2500 hr/yr \* wt % organic \* ton/2000 lb

**PM Emissions from material dumping into the two (2) batch mixers**

Antimony	24000	lb/yr
PVC	120000	lb/yr
Total	144000	lb/yr

Using AP-42, table 8.19.1-1, Ef for batch drop = 0.24 lb/ton

PM = 2 mixers \* (144000 lb/yr) \* 8760/2500 \* ton/2000 lb \* 0.24 lb/ton \* ton/2000 lb

PM = 0.06 ton/yr (uncontrolled)

**Allowable PM/PM10 emissions**

$$4.1 \times \left( \frac{144000 \text{ lbs/yr}}{2000 \text{ lbs/ton}} \right) \times \left( \frac{8760 \text{ hrs/yr}}{8760 \text{ hrs/yr}} \right) = 0.67 \text{ tons PM/yr}$$

= 0.16 lbs PM/hr  
= 0.72 tons PM/yr

Potential emissions are less than the allowable emissions, thus the source will comply with 326 IAC 6-3-2

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**

**Company Name:** Indiana Coated Fabrics, Inc.  
**Address City IN Zip:** State Road 15 North, Poor Drive, Warsaw, IN 46581  
**CP:** 085-12667  
**Plt ID:** 085-00055  
**Reviewer:** NH/EVP

Heat Input Capacity  
MMBtu/hr

16.956

Potential Throughput  
MMCF/yr

148.5

Facilities	MMBtu/hr
Space and radiant heaters (10)	1.42
Drying ovens (4)	12.8
Steam boiler	0.65
Space heaters (2)	0.345
Space heater (1)	0.075
Steam boiler	1.666
<b>Total</b>	<b>16.956</b>

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.14	0.56	0.04	7.43	0.41	6.24

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).